

CLAIMS

[0029] What is claimed as new and desired to be protected by Letters Patent of the United States is:

1. A suture anchor assembly for attachment of tissue to bone, the suture anchor assembly comprising:

a suture anchor comprising a body member having a distal end, a proximal end, a longitudinal axis, an outer surface and at least one suture passage extending through the body member, the suture passage being substantially perpendicular to the longitudinal axis;

a tissue-fixation device attached to the suture anchor; and

at least one suture strand attached to the suture anchor and to the tissue-fixation device by at least one knot located in the proximity of the suture passage.

2. The suture anchor assembly of claim 1 further comprising a plurality of suture grooves in the surface of the body member, such that a suture groove intersects each opening for the suture passage.

3. The suture anchor assembly of claim 1, wherein the knot is located within the suture passage.

4. The suture anchor assembly of claim 1, wherein the tissue-fixation device is in the shape of a disk.

5. The suture anchor assembly of claim 1, wherein the body member comprises a plurality of thread flights extending from the outer surface of the body member.

6. A suture anchor assembly for attachment of tissue to bone, the suture anchor assembly comprising:

a suture anchor comprising a body member having a distal end, a proximal end, a longitudinal axis, an outer surface, a socket having a shape for receiving a suture anchor driver, and at least two suture passages extending through the body member, the two suture passages being substantially perpendicular to the longitudinal axis;

a tissue-fixation device attached to the suture anchor and provided with a central aperture having a shape similar to the shape of the socket for receiving the suture anchor driver; and

at least one suture strand attached to the suture anchor and to the tissue-fixation device by at least one knot located in the proximity of at least one of the suture passages.

7. The suture anchor assembly of claim 6 further comprising a plurality of suture grooves in the surface of the body member, such that a suture groove intersects each opening for the suture passage.

8. The suture anchor assembly of claim 6, wherein the suture strand is looped slidingly through the suture passages.

9. The suture anchor assembly of claim 6, wherein the at least one knot is located within at least one of the suture passages.

10. The suture anchor assembly of claim 6, wherein the tissue-fixation device is in the shape of a disk.

11. The suture anchor assembly of claim 6, wherein the body member comprises a plurality of thread flights extending from the outer surface of the body member.

12. A method of attaching tissue to bone using a suture anchor assembly including a suture anchor having a body member, a distal end, a proximal end, a longitudinal axis, an outer surface and at least one suture passage extending through the body member, the suture passage being substantially perpendicular to the longitudinal axis; a tissue-fixation device attached to the suture anchor; and at least one suture strand attached to the suture anchor and to the tissue-fixation device by at least one knot located in the proximity of the suture passage, the method comprising the steps of:
- inserting the suture anchor assembly through the tissue;
- coupling the suture anchor assembly to a driver;
- applying tension to hold the suture anchor assembly to the driver; and
- installing the suture anchor assembly into bone, using the driver, to approximate the tissue to the bone.
13. The method of claim 12, wherein the suture anchor assembly further comprises at least one traction line extending proximally from the tissue-fixation device, the method comprising the further step of holding the suture anchor assembly onto the driver using the traction line.